

REMARKS

Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claims 1-3, 5, 7, 8, 11, and 13-24 are pending in the application. Claims 2, 5, 7, 8, 11, 13, 21, and 22 are allowed.

Claim 1 recites an inflation fluid source (inflator) comprising means for inflating an inflatable vehicle occupant protection device (inflatable curtain) to a pressure that is a defined mathematical function of the thickness of the protection device. This pressure is sufficient to prevent the head of the occupant from striking the side structure through the thickness of the inflatable curtain. The prior art does not teach or suggest an inflator having this structure.

An inflator constructed in accordance with the present invention provides a distinct advantage over the prior art. In the prior art, for a given curtain configuration, the characteristics of the inflator (e.g., the volume and pressure of the stored inflation fluid) depend on experimentation and the collection of empirical data for the particular curtain. The present invention avoids this and thus may provide significant savings in terms of time and cost.

Claims 1, 3, 14-20, 23, and 24 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, the Office Action states that the "means for inflating..." language is indefinite because it is a method limitation included in an apparatus claim. Applicants disagree and respectfully submit that the rejection of claims

1, 3, 14-20, 23, and 24 under 35 U.S.C. §112, second paragraph, is improper and should be withdrawn.

Applicants submit that the "means for inflating..." language set forth in claim 1 is proper means-plus-function language fully supported by the specification. The means, as taught by the specification, is an inflator. The function, as taught by the specification, is to inflate the inflatable curtain to a pressure that is a predetermined function of curtain thickness and that is sufficient to prevent a head of an occupant from striking the side structure through the thickness of the curtain, when inflated.

This interpretation is supported by the case law cited in MPEP 2181, which sets forth the requirements for satisfying 35 U.S.C. §112, second paragraph in regard to means-plus-function language. If the structure corresponding to the means-plus-function language is described in the specification in specific terms and one skilled in the art could identify the structure from that description, then the requirements of 35 U.S.C. §112, second paragraph are satisfied. See *Amtel Corp. v. Information Storage Devices Inc.*, 198 F.3d at 1382, 53 USPQ2d 1231. If one skilled in the art would be able to identify the structure corresponding to the means-plus-function language from the description in the specification for performing the recited function, then the requirements of 35 U.S.C. §112, second paragraph are satisfied. See *In re Dossel*, 115 F.3d 942, 946-47, 42 USPQ2d at 1885 (Fed. Cir. 1997).

In the present application, based on the disclosure in the specification, one having ordinary skill in the art could easily identify the means for inflating the inflatable curtain as being the inflator. This is set forth both in the in the specification and in the drawings (see item 24 in Figs. 1 and 2, and the description on page 8 line 13 through page 9, line 5. One having ordinary skill in the art would further recognize that the inflation fluid provided by the inflator has the functional characteristics defined by the mathematical relationship set forth throughout the balance of the specification beginning on page 10, line 19, with reference to Figs. 3-5. For these reasons and for the reasons set forth in the preceding paragraphs, it is respectfully submitted that the rejection of claims 1, 3, 14-20, 23, and 24 under 35 U.S.C. §112, second paragraph is improper and should be withdrawn.

Claims 1, 3, 14-20, 23 and 24 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cherry (U.S. Patent No. 6,022,044) in view of Bohman et al. (Paper No. 98-S8-O-07, 16th ESV Conference, June 1-4, 1998, Windsor, Canada).

In rejecting claim 1 under 35 U.S.C. §103(a), the Office Action states that the "means for inflating..." limitation recited in claim 1 has been given little patentable weight because it is a method limitation, which is impermissible in an apparatus claim. This interpretation is improper. As set forth above in regard to the rejection under 35 U.S.C. §112, second paragraph, the "means for inflating..." limitation recited in claim 1 is a proper means-plus-function limitation

and must be fully considered. Cherry and Bohman et al., alone or in combination, do not teach or suggest a means for inflating as recited in claim 1.

More specifically, Cherry and Bohman et al. do not teach or suggest an inflator adapted to provide a volume of inflation fluid sufficient to inflate an inflatable curtain to a pressure that is a defined mathematical function of the thickness of the curtain. According to Bohman et al., the inflatable curtain is tested at a range of inflation pressures to determine the specific pressure at which desired performance characteristics of the curtain are achieved. In Bohman et al., the curtain was inflated to various pressures in order to evaluate its performance. Bohman et al. states, beginning with the last paragraph on page 5, that a range of pressures between 0.5 and 2.0 bar were tested. Bohman et al. goes on to state that, in this range, a pressure of 1.5 bar is required to prevent strike through.


By the teachings of Bohman et al., for any given inflatable curtain configuration, a range of pressures would be tested to determine the required pressure. This is precisely what the present invention intends to avoid. By providing an inflator comprising means for inflating the inflatable curtain to a pressure that is a defined mathematical function of curtain thickness, the present invention eliminates the need for experimentation and the collection of empirical data for the specific curtain configuration. The inflation fluid pressure is purely a defined mathematical function of the curtain thickness.

It is respectfully submitted that Cherry and Bohman et al., alone or in combination, do not teach or suggest all of the features recited in claim 1. Therefore, the rejection of claim 1 under 35 U.S.C. 103(a) should be withdrawn. Claims 3, 14-20, 23 and 24 depend either directly or indirectly from claim 1. Therefore, the rejection of claims 3, 14-20, 23, and 24 under 35 U.S.C. 103(a) should also be withdrawn.

In view of the foregoing, it is respectfully submitted that the above identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


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